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## Early ART in multidrug resistant TB patients with HIV co-infection reduces mortality

A study investigating the impact of early antiretroviral (ART) therapy initiation on survival in HIV-infected patients with multidrug-resistant tuberculosis (MDR-TB) showed that mortality was reduced by 86 per cent in the study group.

Thus far, the therapeutic effects ART in patients with MDR-TB and HIV infection had not been established.

The study followed a subgroup of MDR-TB patients from a randomised controlled trial, the SAPiT (Starting Antiretroviral Therapy at Three Points in Tuberculosis) study, conducted in an out-patient clinic in Durban from 2008 to 2012. The SAPiT trial showed that the initiation of ART during anti-TB treatment in patients with mostly drug-susceptible TB and HIV co-infection reduced mortality by 56 per cent. Based on these and other findings the 2010 South African National ART guidelines were changed to recommend that patients co-infected with MDR-TB and HIV should be started on ART irrespective of CD4+ cell count.

Ambulatory patients aged 18 years and over with pulmonary TB and HIV co-infection were enrolled into the study. Only patients



Group counselling with TB-HIV co-infected participants at CAPRISA's eThekweni Clinic in Durban

with *Mycobacterium tuberculosis* resistant to at least rifampicin and isoniazid were classified as MDR-TB cases.

Clinical outcomes at 18 months were compared in patients randomised to receive ART within 12 weeks of initiative standard first-line anti-TB treatment (combined integrated treatment arm) or on completion of anti-TB treatment (sequential treatment arm).

*Mycobacterium tuberculosis* drug susceptibility results were available in 489 of 642 SAPiT patients: 23 had MDR-TB, 14 in the integrated treatment and 9 in the sequential treatment arm.

At 18 months, the mortality rate was



## Broadreach visit

CAPRISA has partnered with BroadReach Healthcare, a recipient of PEPFAR funds via USAID, that plays a significant role in supporting the South African Government's healthcare services in re-



Front row: Kogie Naidoo, Pria Subrayen, Sophie Pascoe, Siphumelele Mlambo, Nesri Padayatchi. Second Row: Anneke Grobler, Colleen Ntshangase, Marlien Prins, Nono Nkupiso, Precious Radebe. Back row: Day Munatsi, Luthando Qobo, Jay Ramota, Jude Igumbor, Patrick Ngassa, Lynne Footit, Nomsa Mtshaka, Dhirisha Naidoo, Londiwe Luthuli

source-limited parts of the country. Broadreach has a proven track record in health systems strengthening as well as unique expertise as one of the pioneers in implementing a technical assistance model that emphasises

true local capacity building in delivery of HIV and TB clinical services.

This collaborative partnership aims to address challenges in scaling up TB and HIV treatment integration in public health settings in two rural districts

in KwaZulu Natal. The project's broad objective is to implement a peer-led, mentored and supported comprehensive model of integrated TB and HIV services at a primary health care level, aimed at improving TB and HIV outcomes

at a programmatic level and individual patient based level.

The purpose of the meeting held in January was to work through the nuances of project implementation.

- Kogie Naidoo

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11.9/100 person-years in the combined integrated treatment arm and 56.0/100 person years in the sequential treatment arm.

The survival benefit of 86 per cent reduction in mortality associated with ART initiation was evident even in patients who had not initiated appropriate MDR-TB treatment. Similar survival benefits have also been observed in retrospective studies among XDR-TB patients who were co-infected with HIV and received ART.

The authors discussed that if MDR-TB can be diagnosed early and both ART and MDR-TB treatment initiated, mortality is likely to be reduced even further.

A contributing factor in the delay in

investigating possible MDR-TB is that immune reconstitution inflammatory syndrome (IRIS) was considered for MDR-TB patients in the combined integrated treatment arm. In addition to a higher index of suspicion for drug resistance, there is an urgent need for earlier case finding, better diagnostics and integration of TB and HIV care and treatment.

The MDR-TB case load in KwaZulu-Natal has increased four-fold between 2001 and 2004, with resultant larger numbers of primary MDR-TB cases presenting for anti-tuberculosis treatment.

In this study, although MDR-TB mortality was high compared to non-MDR-TB cases, survival was signifi-

cantly improved with ART, even among those who had not yet been initiated on MDR-TB treatment. Early ART initiation is desirable in settings with high MDR-TB prevalence, particularly in sick patients and those with low CD4+ cell counts, as treatment initiation even before MDR-TB is diagnosed has a survival benefit.

Further reading

**Padayatchi N, Abdool Karim SS, Naidoo K, Grobler A, Friedland G.** Improved survival in multidrug-resistant tuberculosis patients receiving integrated tuberculosis and antiretroviral treatment in the SAPIT Trial.

*International Journal of Tuberculosis and Lung Disease* 2014; 18(2):147-154.



## CAPRISA reaches 10-year milestone

CAPRISA's 10-year anniversary in November 2013 was celebrated with a medley of song and dance, motivational messages and the much anticipated long service awards.

The entertainment was provided by the popular singing trio, Three Tons of Fun and motivational speaker, Siphwe Moyo, shared his amusing thoughts on lessons on life and building a high achieving organisation for the future.

Congratulations to the 5- and 10-year long service award recipients and well done to the organisers of the function, led by Angela Carr-Hartley for another successful and memorable end-of-year function.



### 5 year long service awards

|                      |                 |
|----------------------|-----------------|
| Danielle Louw        | Leila Mansoor   |
| Zanele Mchunu        | Reshika Singh   |
| Nonhlanhla Gahima    | Samkelo Boo     |
| Nonkululeko Mayisela | Phumzile Mbili  |
| Ntombifuthi Mkhize   | Carol Minnie    |
| Bhavna Maharaj       | Dolly Mzolo     |
| Lorraine Mhlongo     | Thusi Pather    |
| Nelisiwe Ngcobo      | Linda Ngaleka   |
| Zonke Mayisela       | Alicia Desmond  |
| Odette Ferreira      | Vani Govender   |
| Lindiwe Gumede       | Daya Moodley    |
| Sthembile Mnembe     | Vanessa Tombe   |
| Thobile Mungwe       | Bronwyn Remley  |
| Nokulunga Bhengu     | Nelisiwe Dladla |
| Christina Khwela     | Duduzile Nkosi  |
| Joanne Richards      |                 |

### 10 year long service awards

|                         |                 |
|-------------------------|-----------------|
| Quarraisha Abdool Karim | Cheryl Baxter   |
| Salim Abdool Karim      | Andy Gray       |
| Jerry Coovadia          | Janet Frohlich  |
| Tanuja Gengiah          | Ayesha Kharsany |
| Nesri Padayatchi        | Jerome Singh    |
| Nonhlanhla Mchunu       | Marian Swart    |
| Gethwana Makhaye        |                 |

## Vulindlela Clinic Christmas campaign

For a fifth year in a row, CAPRISA has provide gifts for the Christmas Gift Box Initiative for children in the Vulindlela area.

In December, approximately 70 gift boxes were donated by the staff of CAPRISA to children who were part of the paediatric CAPRISA AIDS Treatment (CAT) programme. All the children have subsequently been transferred back to state facilities for their treatment following the end of PEPFAR funding.

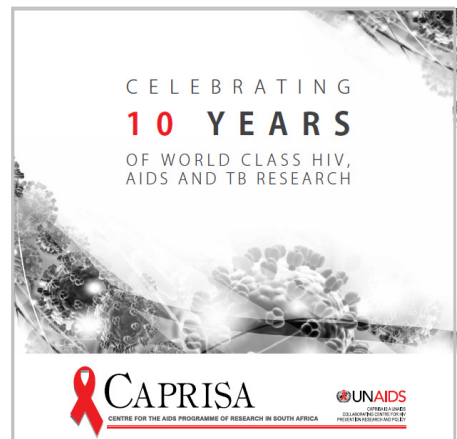
Last year's Christmas celebration included poetry recitals by some children, some dancing and singing. Lunch



was kindly sponsored by Global Laboratories and Santa Claus (Mbongeni Zuma) even arrived to hand out the parcels. Stocking fillers were provided once again by Vagabond Clothing.

Many thanks to the staff and their family members for supporting the initiative once again and for making a difference in the lives of the children in Vulindlela.

- Michele Upfold



Visit the CAPRISA website to download the souvenir brochure celebrating 10 years of HIV/AIDS and TB research excellence — <http://www.caprisa.org/SitePages/Galleries.aspx>.

Also available is the recently launched video featuring interviews with CAPRISA's senior management and original footage show its facilities and work in the community — <http://www.caprisa.org/SitePages/Videos.aspx>



## Scientific papers published in 2014



CAPRISA is an official research institute of the University of KwaZulu-Natal and Columbia University.

CAPRISA was established in 2002 through a CIPRA grant from the NIH, as a multi-institutional collaboration, incorporated as an independent non-profit AIDS Research Organisation

Registration Number: 2002/024027/08

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## Scientific Reviews

| Abstracts submitted for review |                         | Manuscripts submitted for review |                         | Ancillary studies submitted for review |                         |
|--------------------------------|-------------------------|----------------------------------|-------------------------|--|-------------------------|
| Total <sup>#</sup>             | Cumulative <sup>^</sup> | Total <sup>#</sup>               | Cumulative <sup>^</sup> | Total <sup>#</sup>                     | Cumulative <sup>^</sup> |
| 3                              | 304                     | 2                                | 178                     | 2                                      | 52                      |

# for month, ^ since committee initiation

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